

PRECISION STRIKE ANNUAL REVIEW (PSAR-18)

20 MARCH 2018

LOCKHEED MARTIN GLOBAL VISION CENTER

2121 CRYSTAL DRIVE, ARLINGTON, VA

PSAR-18 will be conducted at the **SECRET//NOFORN** Classification Level

This document is unclassified in its entirety

Strategic and Agile Acquisition Response to the Growing National Security Threat

PSA Programs Chair: Ginny Sniegon

PSA Programs Vice-Chair: Captain David “Jumbo” Baird, USN

Annual Review Chair: Kurt Chankaya

Congressional & William J. Perry Award Chair: Dick Rumpf

Annual Meeting Chair: Ken Masson

U.S. Military & Civilian Advisors

Air Force: Colonel Steve “Dallas” Horton, USAF

Army: Lieutenant Colonel Frank Leija, USA & Lieutenant Colonel Ken Britt, USA (Ret)

Navy: Commander Eric “Skip” Taylor, USN & Major Ryan “Puddles” Thompson, USMC

Marine Corps: Major Ryan “Spidey” Welborn, USMC

Joint Staff: Lieutenant Colonel Nathan “VI-DOF” Diller, USAF (J-8) & Major Dan “Otis” Harper, USAF (J-8)

OSD: Captain David “Jumbo” Baird, USN & Chuck “Tooba” Kelly

TUESDAY, 20 MARCH

0700 REGISTRATION / CONTINENTAL BREAKFAST

0745 PSA ANNUAL REVIEW WELCOME:

Ken Masson—PSA Chairman

0755 PSAR-18 OPENING REMARKS:

Kurt Chankaya—PSAR-18 Event Chair

0800 CONGRESSIONAL PERSPECTIVE—THE GROWING NATIONAL SECURITY THREAT:

Congressman Rob Wittman (VA-01)—Chairman of the House Armed Services Committee Subcommittee on Seapower and Projection Forces

0830 NATIONAL SECURITY STRATEGY OF THE UNITED STATES OF AMERICA:

Dr. Nadia Schadlow—Deputy National Security Advisor for Strategy, NSC

0900 NETWORKING REFRESHMENT BREAK

- 0915 NATIONAL DEFENSE STRATEGY (NDS)—PRECISION ENGAGEMENT CHALLENGES:**
Elbridge Colby (SES)—Deputy Assistant Secretary of Defense for Strategy and Force Development, Office of the Under Secretary of Defense (Policy)
- 1000 DEVELOPING AGILE JOINT REQUIREMENTS AND CAPABILITIES:**
Brigadier General David Krumm, USAF—Deputy Director for Requirements & Capability Development, Joint Staff Force Structure, Resources and Assessment Directorate (J-8)
- 1030 CONVENTIONAL PROMPT STRIKE TEST RESULTS:**
Colonel David Buchanan, USAF—Deputy Director for Space and Prompt Strike, OUSD for Acquisition and Sustainment (OUSD(A&S))
- 1100 DARPA OPERATIONAL FIRES:**
Major Amber Walker, USA, Ph.D.—Program Manager, Tactical Technology Office, Defense Advanced Research Projects Agency (DARPA)
- 1120 TURNING EXISTING TECHNOLOGIES AND WEAPONS INTO SURPRISING NEW CAPABILITIES—FAST:**
Vincent Sabio—Program Manager, Advanced Technology Programs, Strategic Capabilities Office (SCO), OUSD for Research and Engineering (OUSD(R&E))
- 1200 KEYNOTE ADDRESS—U.S. PACIFIC FLEET POSTURE FOR PRECISION ENGAGEMENT:**
Admiral Scott H. Swift, USN—Commander, U.S. Pacific Fleet (via Video)
- 1230 LUNCHEON & WILLIAM J. PERRY AWARD CEREMONY (Multipurpose Room)**
- **PSA Chairman’s Announcement:** **Ken Masson**
 - **Special Remarks by Dr. Bill Perry:** **Dick Rumpf presents Video**
 - **Presentation of 22st William J. Perry Award to Admiral Scott H. Swift, USN**
 - **Reading of Citation:** **Captain Jumbo Baird, USN**
 - **Brief remarks by Admiral Scott “Notso” Swift, USN** (via Video)
 - **Special Luncheon for All Participants**
- 1320 NUCLEAR POSTURE REVIEW (NPR)—PRECISION STRIKE STRATEGIC CHALLENGES:**
Gregory J. Weaver (SES)—Deputy Director, Strategic Stability (DD STS) Strategic Plans and Policy Directorate (J-5), the Joint Staff
- 1400 F-35 JOINT STRIKE FIGHTER PROGRAM UPDATE:**
Vice Admiral Mat Winter, USN—Director, Joint Strike Fighter Program, Office of the Secretary of Defense

- 1445 DEFENSE INDUSTRIAL BASE OPTIMIZATION MODEL CONCEPT:**
Dr. Justin Lloyd & Julie Kelly—Research Staff Members, Strategy, Forces & Resources Division (SFRD), Institute for Defense Analyses (IDA)
- 1505 REFRESHMENT BREAK**
- 1515 SPECIAL TACTICS INNOVATION MODEL:**
Major Mike Smith, USAF—Chief of Weapons & Tactics, 720th Special Tactics Group, Air Force Special Operations Command (AFSOC)
- 1545 FUTURE STRIKE TECHNOLOGIES FOR PRECISION ENGAGEMENT:**
Lieutenant Colonel Nathan Pierpoint, USAF—492nd Special Operations Wing, Chief of Tactics Development and Innovation, AFSOC
- 1615 MUNITIONS INDUSTRIAL BASE RESILIENCY TO MEET CURRENT NEEDS AND FUTURE COMBAT OPERATIONS:**
Eric Chewning (SES)—Deputy Assistant Secretary of Defense for Manufacturing & Industrial Base Policy, OUSD for Acquisition and Sustainment (OUSD(A&S))
- 1700 EVENING RECEPTION WITH HEAVY HORS D’OEUVRES & INFORMAL ANNUAL MEETING**

UNCLASSIFIED

PSAR-18



USAF Special Tactics Innovation Model

Major Michael D. Smith
720th Special Tactics Group



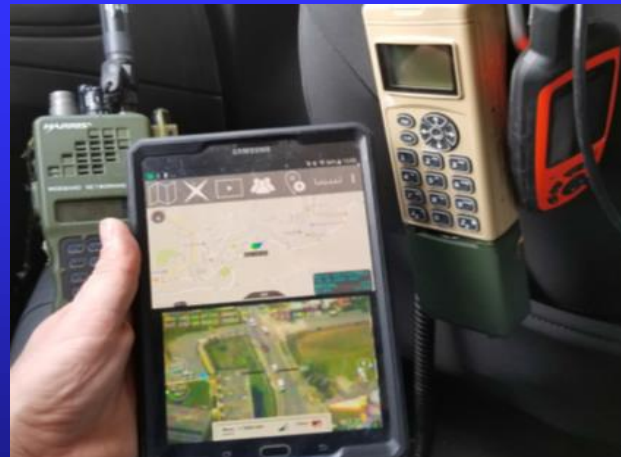
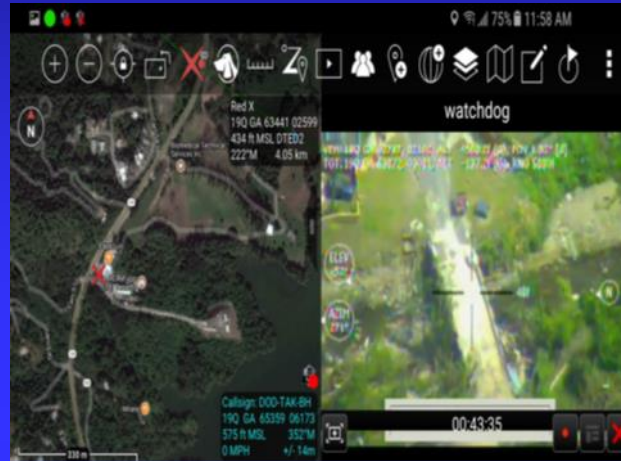
UNCLASSIFIED

UNCLASSIFIED

OVERVIEW



- Situation
- Analysis
- Approach



UNCLASSIFIED



Special Tactics Missions and ST C2MS

Situation

— Global Access

Airfield Seizure / Survey: Launch Follow-on Missions / Off-site Raids

— Precision Strike

Interdiction / CAS / Kinetic Strike vs HVIs

— Personnel Recovery

CSAR / Battlefield Trauma Support and Austere Surgery

These missions required a new ground-centric systems approach called ST C2MS*

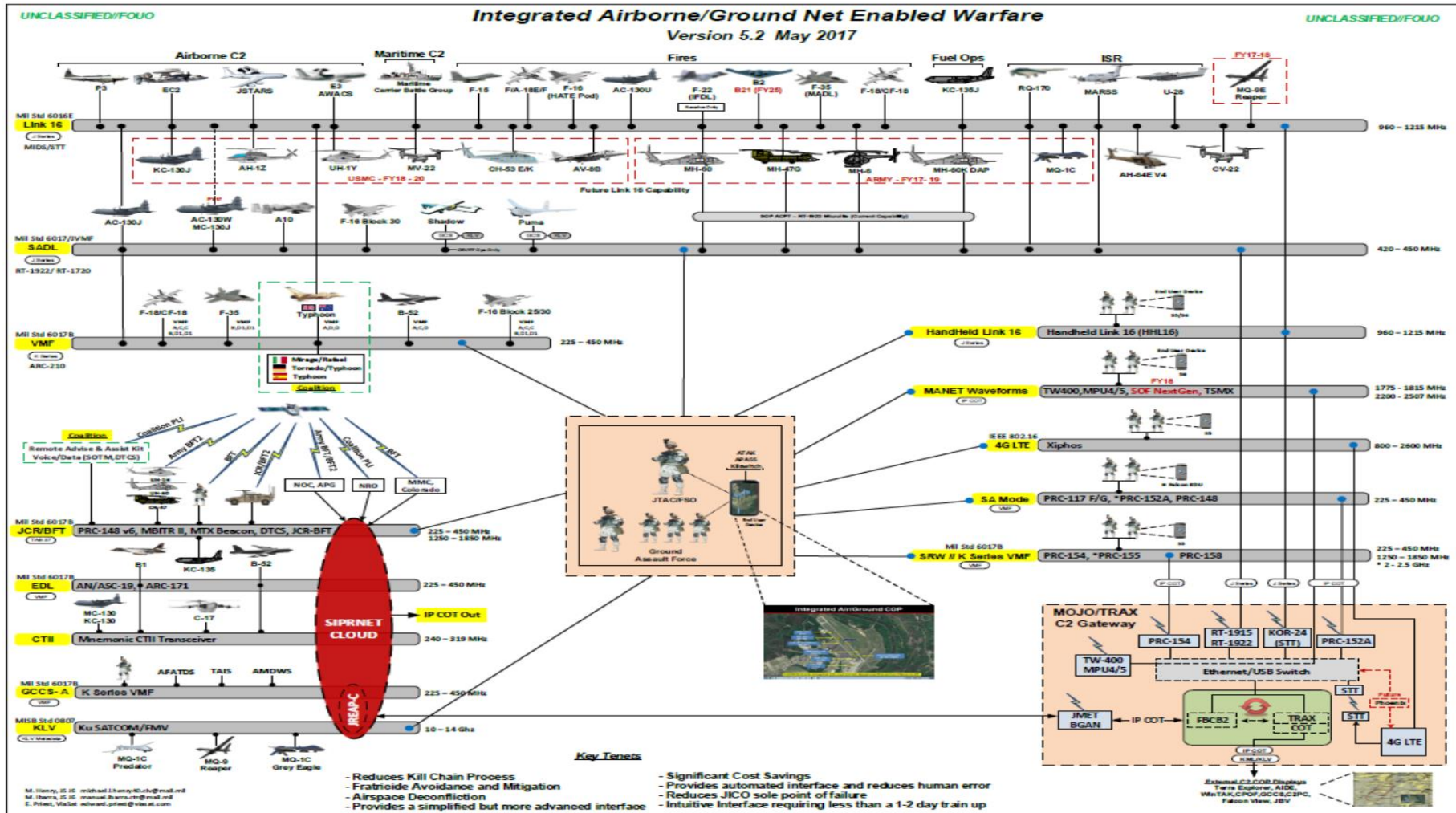
**Special Tactics Command and Control Mission Systems*

UNCLASSIFIED

Special Tactics Communications Matrix

Integrated Airborne/Ground Net Enabled Warfare

Version 5.2 May 2017



UNCLASSIFIED



UNCLASSIFIED

Special Tactics

Ground-Centric Datalink Solution



Fig 1: Current Army and Air Force Link 16 System



Fig 2 Current SOF Link 16 System

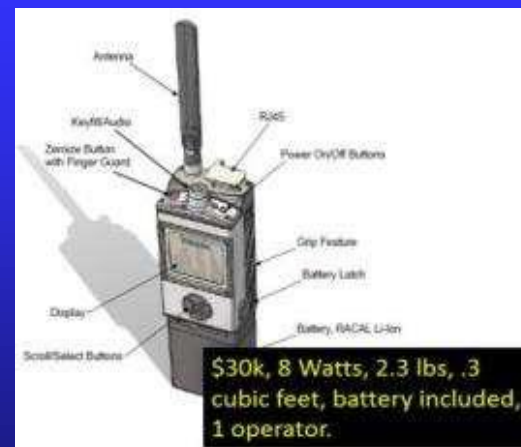


Fig 3 Hand Held Link 16



UNCLASSIFIED



ST C2MS

ST C2MS is similar to:

- Aircraft airborne mission networking (AbMN) systems
- Traditional C2 servers and applications
- Electronic flight bags (EFB)

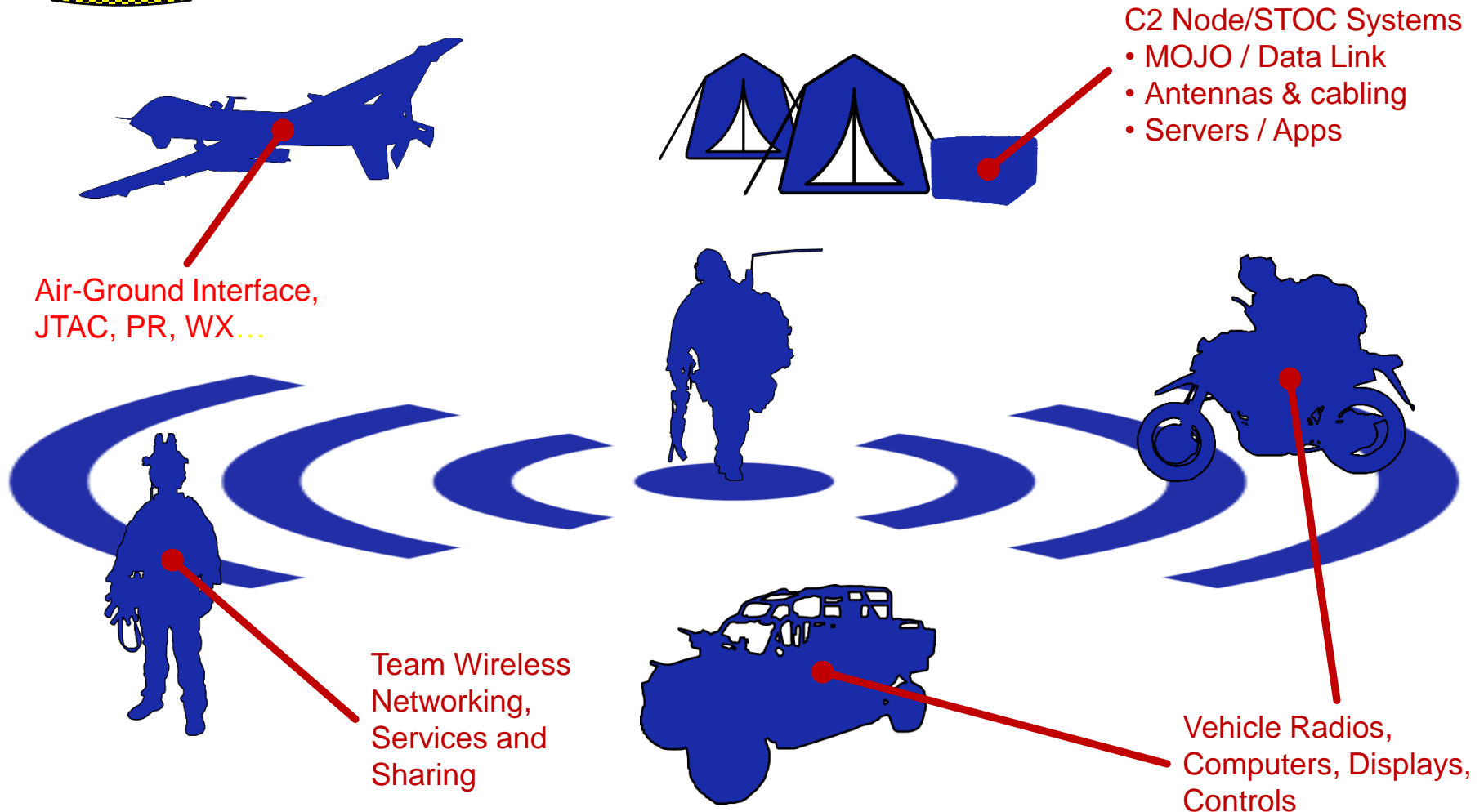
ST operators are the focus, not aircraft platforms

ST C2MS connects and networks:

- Other ST and SOF operators
- Vehicles
- C2 nodes
- Air and ground weapon systems



ST C2MS & Mission Networking





ST C2MS Wearable Components

Human-Machine Interfaces

- Audio
- Microphones
- Display
- Control

Personal Area Network (PAN)

- Hub
- Cabling
- Adapters
- Services & Boundaries

Mission Appliances

- UAS Integration
- Sensors
- Designators
- Optics

Radios

- Voice
- Data / Video
- Data Link
- Antennas & cabling

Compute, Controls, & Display

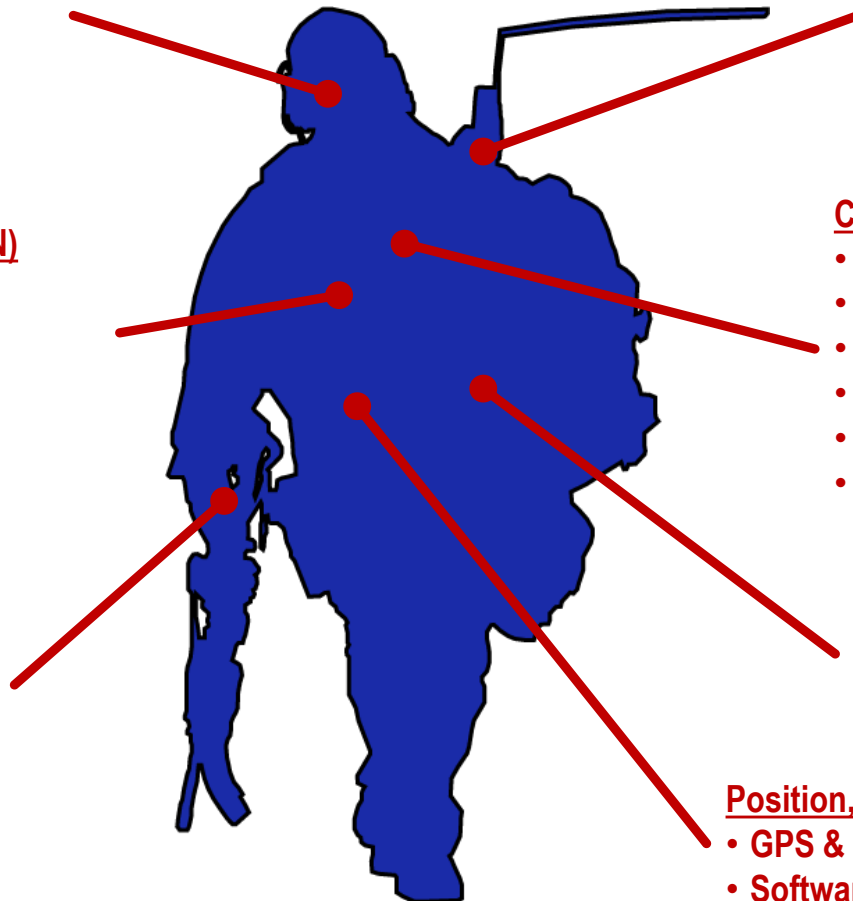
- Tablet
- Software
- Interface & Casing
- Keypads
- Storage
- Applications

Power Management

- PAN interface
- Batteries

Position, Navigation, & Timing (PNT)

- GPS & PNT Devices
- Software, Moving Map





UNCLASSIFIED

Special Tactics

Mission Support Organization

Issues

- Reliance on multiple PEOs, PMOs, and SPOs through a variety of C2 authorities

Inconsistent relationships

Product synchronization is ad hoc at best

None are accountable for end state, overall ST capability

Little to no AF, SOF, AFRL de-confliction and collaboration

Serial coordination across agencies causes lengthy delivery schedules



UNCLASSIFIED



UNCLASSIFIED ATAK Core Capabilities



Maps/Imagery



GeoFence



Route Analysis



Overlays



Emergency Alerts



Mission Package



Map Markers



9Line, CFF



JumpMaster



Chat



Fires Tools



Tactical Radio Controls



Video



MEDEVAC



Drawing tools



Coordinate/
Address



Route
Planning



Elevation Analysis



Range & Bearing



Navigation



Layout Manager



UNCLASSIFIED ATAK Plugin Efforts



Ground
Guidance



Survey Kit
(ATSK)



Geo Cam



Air Overlays



sUAS C2 & ISR



Rad Nuke



Data Sync



Sniper Toolkit



Air Warden



WAMI



Weather



RECCE log



Mortars Fires



Silver Fang UAS
SIGINT



Skate UAS



Digital Nautical
Charts (DNC)



Avalanche
Prediction



Combat Swim



DACO



SSE



Terrain Streaming



HUD controller



SLANT
(SITREP Report)

Legend: SOMPE Plugins



Organization Complexity Example

ST Mission Networking (BAO Kit - ATK - FCD-W)



PEO-C4
(USSOCOM)



SOMPO PMO



Nett Warrior PMO
(USA)



BA SPO
(USAF)



PEO SOF/ISR
(USAF)



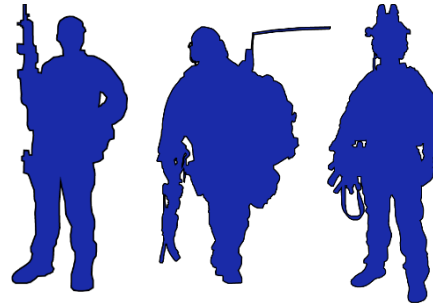
TACLAN PMO



PEO-SOF Warrior
(USSOCOM)



SOFTACS PMO



SOF PR/RW SPO
(USAF)



AFRL
(USAF)



SOF/PR RECAP SPOs
(USAF)



PMSP PMO



PEO-FW
(USSOCOM)



Multiple CAD



CERDEC
(USA)



Multiple Aircraft SPOs
(USAF)



PEO Mobility
(USAF)



BAO / ATAK Primary Agencies



PEO SOF/ISR
(USAF)



BA SPO
(USAF)



AFRL
(USAF)



PEO-C4
(USSOCOM)



TACLAN PMO



SOFTACS PMO



SOMPO PMO



PEO-SOF Warrior
(USSOCOM)



PMSP PMO

- ST personal mission networking kit is delivered and affected by multiple PEOs and SPO/PMOs
- Often synchronization issues
- No integrator
- Variety of different decision makers



Nett Warrior PMO
(USA)



CERDEC
(USA)



UNCLASSIFIED

Special Tactics

Mission Support Organization

Actions

- Mandate clear roles and lead PEO with faster timelines
- Mandate integration and interoperability
- Relieve some PEOs/SPOs of requirement and POM funding
- Develop AFSOC Integration Cell to synchronize actions and deliver interoperable configurations



ST Mission Materials (ATAK)



Issues



- Systems delivered well beyond need date

Not responsive to operations

Systems outdated quickly due to 20-26 month upgrade cycle

- Without classified/unclassified options (HHL-16 / Training / HADR)
- In un-useable configurations (No BT/Cell/Wi-Fi)
- Not interoperability with other SOF / AF / joint systems
- With inappropriate / unusable cybersecurity settings
- Without sufficient support & support architectures

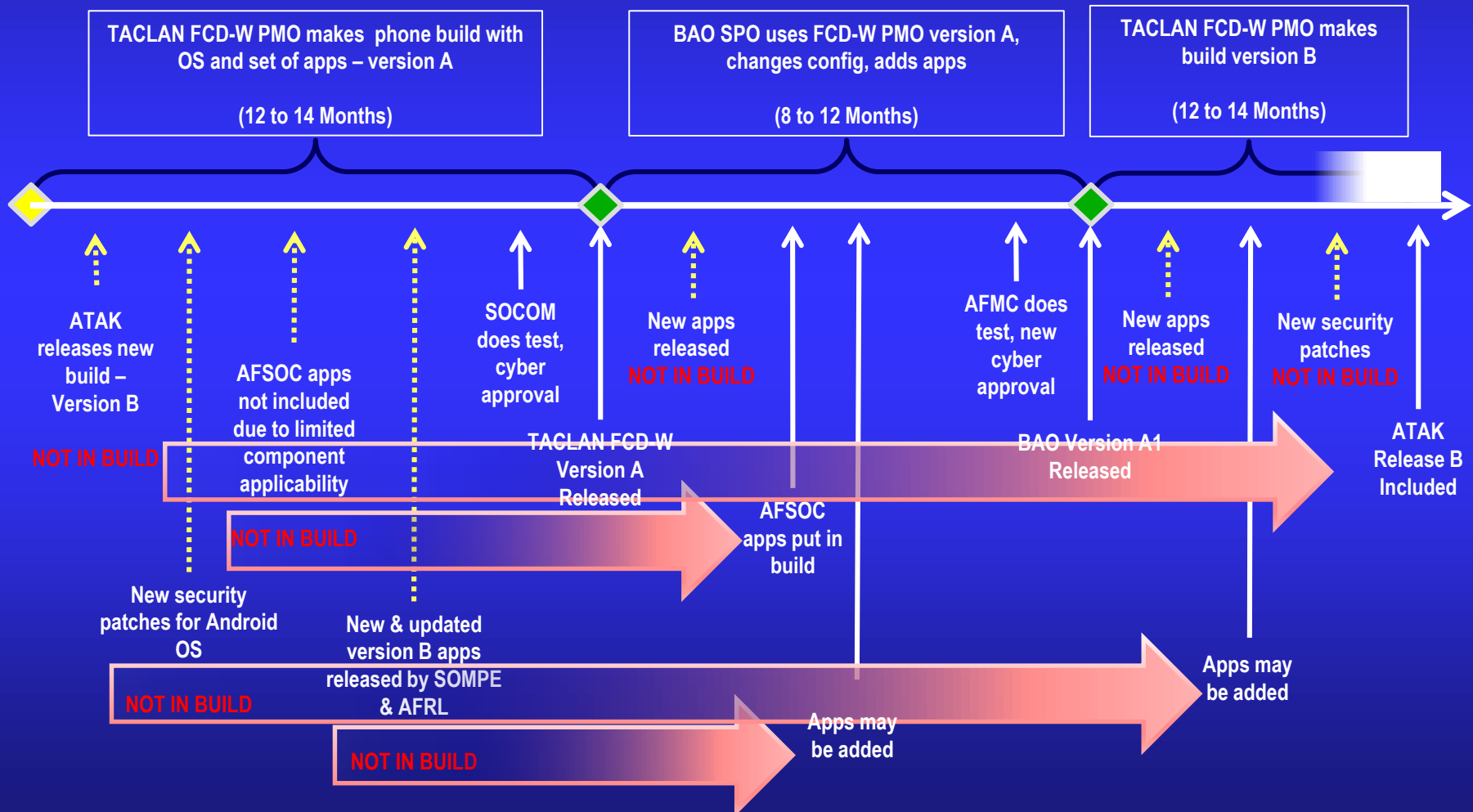
Without sufficient content management

With non-automated manpower intensive architectures



Today's Software Flow – ATAК / BAO

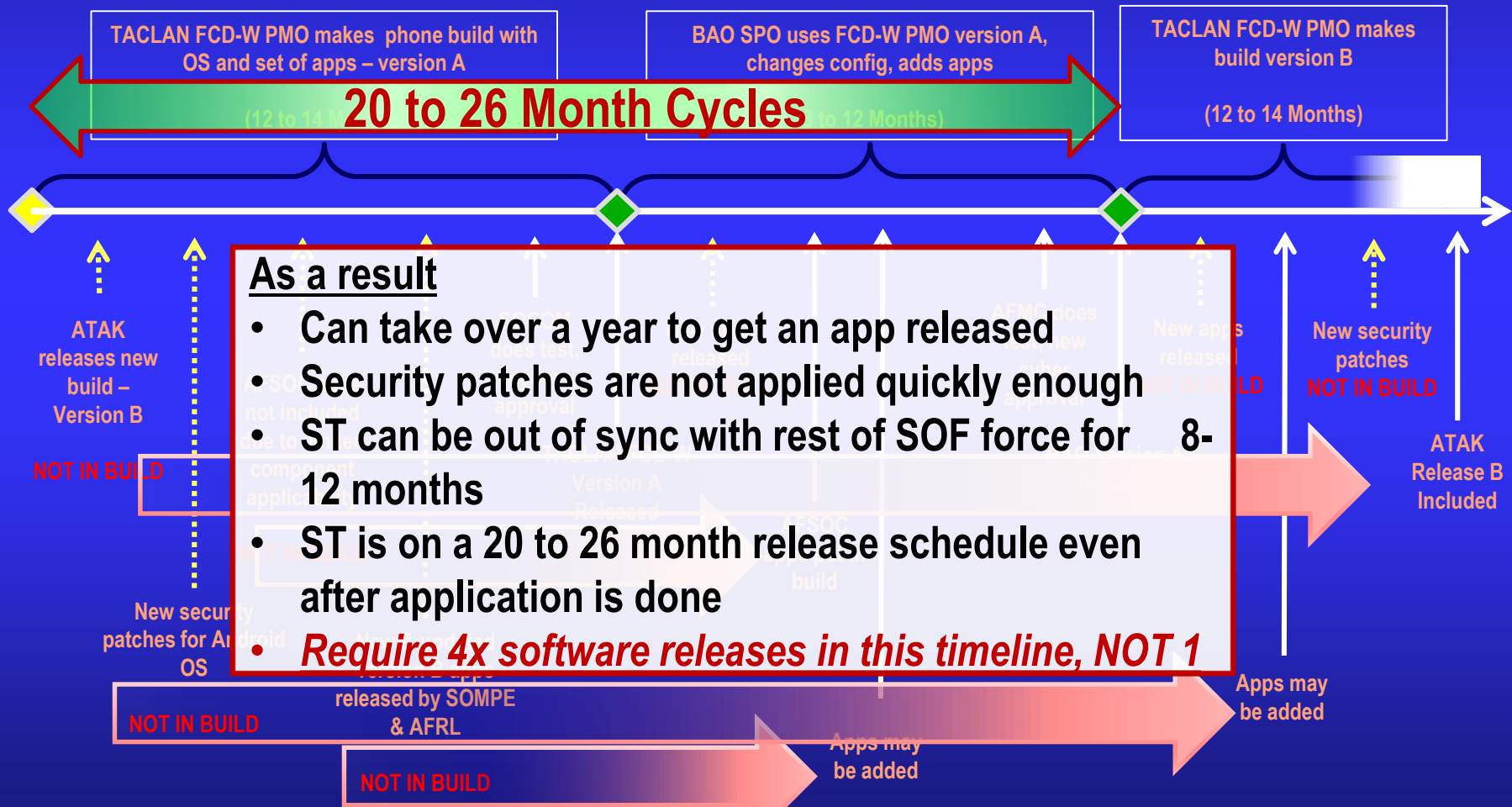
Starts over with new version and neither effort covers an UNCLASSIFIED capability





Today's Software Flow – ATAК / BAO (2)

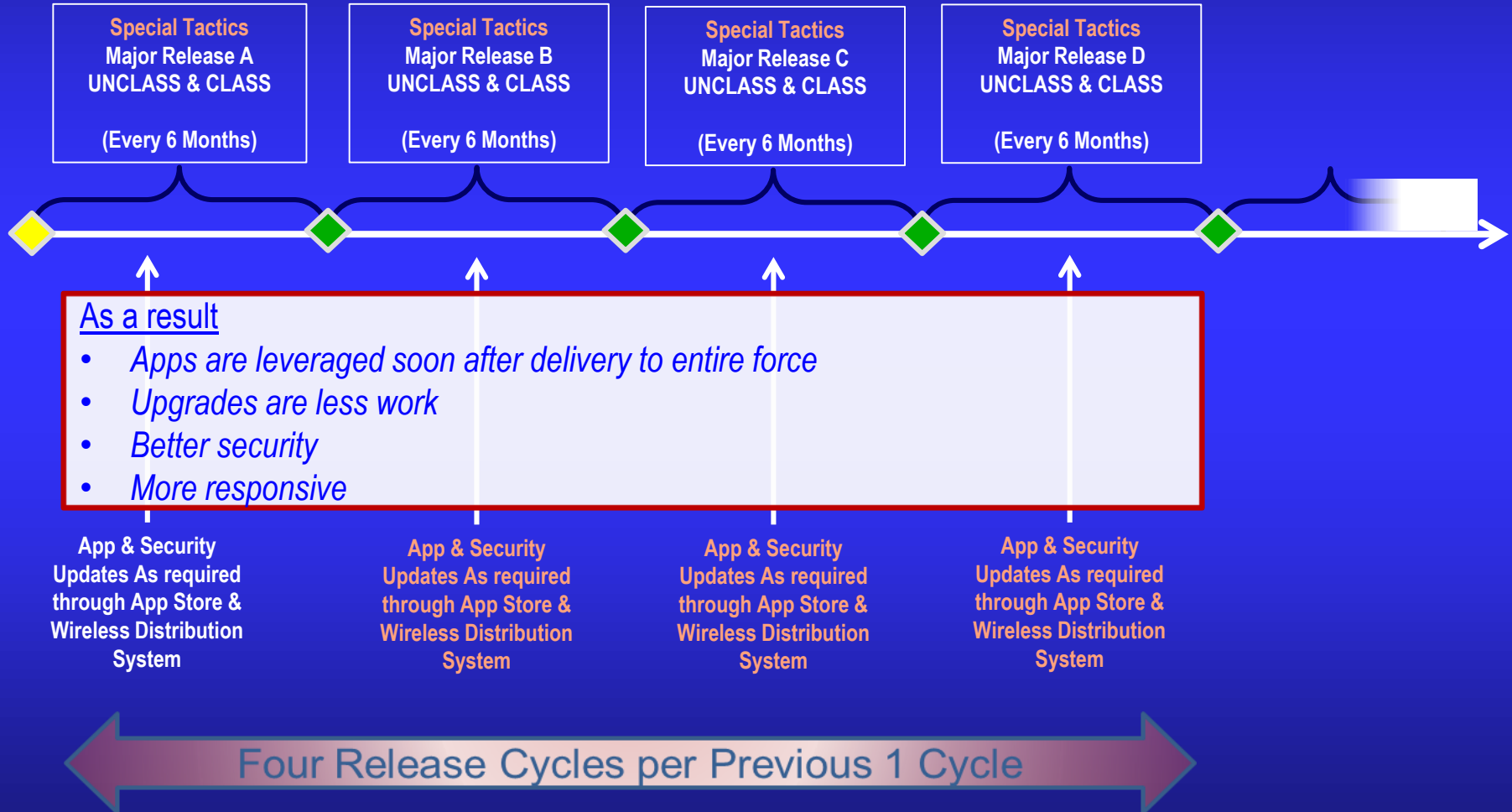
Starts over with new version and neither effort covers UNCLASSIFIED capability





Required Software Flow

Leverages app store, mobile device management, and wireless distribution





Personnel

Issues

- Existing support contracts do not fill all needs; over-scoped and undermanned
- Lack of technical experts to ensure components are properly integrated, interoperable, cyber secure, and supportable
- Lack of government technical expertise to ensure proper contract oversight (form-factor, network, software)
- Not enough manpower for manual support architecture; manpower doesn't exist to properly support equipment
- Lack of architects to ensure system of systems work



Special Tactics

C2MS Imbedded Specialties and Services



- Computer Systems / Mobile Device Engineering
- Software Engineering
- Network Engineering
- RF Engineering
- Cybersecurity Engineering
- Information Systems Security Manager (ISSM)
- Device Specialists
- Courseware Developers
- Trainers
- Systems Sustainment Technicians
- Configuration Management
- Reachback Support



C2MS Strategy

- Establishing C2MS at Hurlburt Field, FL with satellite presence at other Special Tactics (garrison / deployed) sites
- Fill service and expertise gaps with new/modified contracts
 - Include PMO/SPO engineers/program liaisons*
 - Include all support services*
 - Clarify, update, and leverage existing contracts*
- Establish ST Integration Facility
- Establish ST mission networking architecture

C2MS Roadmap



Mar 2018	Apr 2018	May 2018
Contracts on Task		
C2MS Stand-Up		
	C2MS Start Unclass & Class (ATAK / HHL-16) Integration Builds	
	C2MS Device Management & Data Distribution	
	C2MS One-Off ST Capabilities Builds	

***All dependent on funding availability and contract timelines**



Projected Costs to Revolutionize The Special Tactics Enterprise

These costs cover expertise / services required and core support architecture to address issues.

**Does not account for existing contracts that could reduce costs by \$2M.*

Category	Costs	Comment
Full Time Services	\$5.05M	Engineers, cybersecurity, training developers, etc...
Liaison & Reps	\$1.20M	From ATAK, BAO, SOMPE, AFRL, TACLAN
Materials	\$3.20M	Wireless, Device Management
Total	\$9.45M	



Questions?

Major Michael D. Smith

720 Special Tactics Group

121 Terry Ave

Hurlburt Field, FL 32544

(850) 884-7917 / DSN 579-7917

michael.smith.157@us.af.mil

michael.d.smith@socom.smil.mil